Electronic Version
Stylesheet Version v1.1.1

VOLTAGE DIVIDER FOR INTEGRATED CIRCUITS

Abstract

A voltage divider for integrated circuits that does not include the use of resistors. In one embodiment, voltage node VDD is connected with two n-type transistors, NFET1 and NFET2, which are connected in series. NFET 1 includes a source (12), a drain (14), a gate electrode (16) having a gate area A1 (not shown), and a p-substrate (18). NFET2 includes a source (20), a drain (22), a gate electrode (24) having a gate area A2 (not shown), and a p-substrate (26). Source (12) and drain (14) of NFET1 are coupled with gate electrode (24) of NFET2. The voltage difference between NFET1 and NFET2 has a linear function with VDD. As a result, voltage VDD may be divided between NFET1 and NFET2 by properly choosing the ratio between each of the respective transistor gate electrode areas, (A1) and (A2).